SHORT TERM WORK, LONG TERM CONSEQUENCES:

HOW NEW WORK ARRANGEMENTS ARE TRANSFORMING WASHINGTON LABOR MARKETS

September 1999

Marc Baldwin
Washington Senate Democratic Caucus
John A. Cherberg Building
Olympia, Washington 98504-0482

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Executive Summary

This study uses a unique resource, the Washington State Population Survey (SPS), to examine the effect of new work arrangements on labor market outcomes. The SPS is a survey of over 7,000 Washington State households, conducted every two years. This study is based on the 1998 survey for which the revised data was made public in July 1999.

The study has five parts. First, it reviews national information on "contingent" and other temporary work. Over 12 million Americans are currently working under these new employment relationships. This section includes discussion of youth labor markets.

Second, it provides background information on the demographics of specific new work arrangements, examining race, gender, and distribution of contingent jobs among industries. These comparison tables conclude with a summary of the impact of new work arrangements on employee benefits, finding a marked reduction in benefits coverage among all categories of temporary workers (Part Two on specific new work categories, Part Three on work and work time, and Part Four on the intersection of work time and employee status).

The study concludes with an econometric analysis of workers' wages in traditional and non-standard employment (Part Five). This section of the study is designed to address the question of whether new work arrangements are fundamentally changing the way employers set individual wages. After accounting for skill and experience, gender, race, and firm size, we find new work arrangements reduce wages by between eight and 30 percent. The range of effects is largely due to the size of the employer, suggesting that the need for further research on the use of contingent work arrangements among large and small employers.

SUMMARY OF KEY FINDINGS

"Contingent" jobs are defined as one of four categories: temporary, temporary agency, contract, and "other" temporary workers. These jobs are defined by the fact that they imply only partial employee status. This study also uses information on these jobs, plus information on full and part-time work hours, to define four categories of work: (1) full time, full employee status, (2) part-time, partial employee status, (3) full-time, partial employee status, (4) part-time, partial employee status.

Regions.

Part-time and contingent work is a significant portion of adult employment in every region of the state, ranging from 23 percent of the Tri-Cities area to 31 percent in the West outside of King County.

Firm Size.

Over one-third (36 percent) all adult employment in firms of two to nine employees is part-time or contingent. 16 percent of all adult employment in firms of over 500 is part-time and/or contingent.

Gender.

Unlike national data, the Washington data shows little difference between participation rates of men and women in contingent jobs. Significant differences show up when both part-time and part status are considered, with women over-represented in both part-time full status and part-time partial status employment.

Race.

Native Americans are employed as temporary agency workers in rates well above their portion of total adult employment. Asian or Pacific Islanders are over-represented among both temporary and temporary agency workers.

Education.

"Temporary" jobs and "other" contingent jobs are distributed evenly among education groups. Temporary agency jobs are concentrated among less educated and college educated adults. Contract jobs are concentrated among the highest educated workers. 49 percent of all part-time, partial employee status adults have college degrees or more.

Industry.

"Temporary" workers and "other" contingent workers are distributed across all industries, but temporary agency workers are over-represented in construction and services. Contract workers are heavily over-represented in services. 20 percent of all full time, full employee status adult employment is in manufacturing, though it is only 17 percent of all employment.

Work Time.

Three-fourths of all adult temporary agency workers work full time. 81 percent of full time contingent workers would prefer full time permanent employment.

Wages and Benefits.

Employer health plans, educational assistance, child care subsidies, paid vacation and sick leave, retirement benefits and unionization are all more common among full time, full employment status workers than among any of the part-time or contingent categories.

New Wage Relationships?

After controlling for skill, experience, firm size, gender, and race, workers in new work arrangements can expect to earn around 10 percent less than comparable workers in comparable firms. This suggests a new paradigm for wage setting, if not a trend toward these new arrangements.

SHORT TERM WORK, LONG TERM CONSEQUENCES

The current economic situation, across the United States and in Washington State, is a study in contradictions. On one hand, the good news is incredibly good. As this is written, the United States is entering its 100th consecutive month of economic growth. Between 1993 and the end of 1998, 18.8 million jobs were created. We are witnessing the tightest labor market in 30 years combined with the second lowest increase in inflation since 1964.[1]

But the nature of this recovery hides more complicated experiences. Economic change is imposing unique costs on workers and their families. Despite tight labor markets, the average spell of unemployment was 14.5 weeks last year, almost a month longer than the average at the 1979 business cycle peak. Growing personal debt is outstripping anemic increases in earnings. Job tenure is declining. Perhaps most importantly, productivity gains are not translating into wage gains to the extent they have in the past.[2]

In part this tension between strong economic growth and underlying economic dislocation and uncertainty is the direct result of national economic policy. The combination of fiscal discipline and accommodating monetary policy has created strong economic growth at the expense of social protections.[3] Tight federal budgets and tight labor markets are generating a combination of low unemployment rates and heightened economic insecurity. In part, the tension between economic growth and economic uncertainty arises due to employment shifts among industries, particularly the much-discussed (and overstated) shift from manufacturing to services. But the role of employment strategies *within* industries and *within* firms must also account for some of the changing outcomes and attitudes toward the new economic environment. It is this changing relationship which motivates the following study.

The uneasiness with which many workers view an otherwise stellar economic landscape and the reduced economic benefit which workers are realizing from sustained low unemployment may result from new patterns in the relationships among employees and employers. The growth and persistence of non-standard work arrangements — contracting, temporary help, employee leasing, day labor — raise fundamental issues about the functioning of labor markets; the future of wages and benefits; and the distribution of training, income, and benefits across races, genders, and geographies. More flexible employment systems raise inherent questions about the value of employment stability. In an economy where the vast majority of safety net programs are based on employment, changes in employment relationships imply enormous consequences.

The need to understand the expansion of non-standard work arrangements and increasingly "contingent" employment has fostered targeted data gathering by the federal Bureau of Labor Statistics (BLS) and a unique Washington state data source, the Washington State Population Survey (SPS). Every two years, a special supplement to the national survey and the SPS each ask detailed questions about the existence and implications of alternative work and contingent jobs. These unique data sources provide an opportunity to explore the implications of new employment relationships. The fact that the most recent Washington survey is now publicly

available inspired this study. It is important to get beyond merely categorizing these new arrangements. The link between changing employment relationships and labor market outcomes

is the focus here. To what extent does the changing landscape of employment relationships carry implications for wages and benefits and, by extension, the economic future of Washington State's workers and employers?

WHAT'S NEW ABOUT THESE NEW RELATIONSHIPS?

Like so much of the debate about the "new economy", it is not always clear what is "new" about these employment relationships.[4] Authors of a recent Employee Benefits Research Institute report reject the premise that there is anything new about today's labor market: "Conventional wisdom is wrong: The labor market in the United States today is not changing dramatically."[5] They base this assumption on a comparison of trends between 1995 and 1997, missing decades of prior change and the birth of an entire industry devoted to temporary help supply.

Some of the confusion stems from the nature of survey data on employment. When surveys are conducted, the employment questions typically focus on a workers' current job or employment in the week preceding the survey. The resulting survey data is a snapshot. Identifying trends requires following individual workers through a longer period. Using the Longitudinal Survey of Youth, which has tracked 6,000 men and women since 1979, Marianne Ferber and Jane Waldfogel found that 79 percent of men and 85 percent of women had worked in a non-traditional arrangement at some point in their working lives.[6]

Audrey Freeman is credited with the first use of the phrase *contingent work* to define these burgeoning arrangements.[7] Her phrase is intended to highlight the conditionality of employment. Unfortunately, where most employment is "at will", the concept of contingent work is difficult to define. Contingent upon what? To have meaning, the definition requires an explicit or implicit contract. In addition to conditionality, contingent jobs are sometimes distinguished by their attenuated durations, regardless of whether that attenuation is agreed upon in advance. Steven Hipple of the Bureau of Labor Statistics (BLS), for example, writes "...contingent jobs — that is, jobs that are structured to be short term or temporary."[8] This assumption runs smack into the rise of "perma-temps" which are contingent, but not short term.

The Bureau of Labor Statistics survey makes a further distinction between *contingent* work ("whether their job was temporary") and *alternative work arrangements* (four employment relationships including temporary agency workers, contracted, on-call, and independent contractors). Note that the two BLS categories are not exclusive: workers in alternative arrangements may be full- or part-time and workers on contingent contracts may be hired through agencies. The BLS usage is confusing because alternative work arrangements are also contingent.

Categorization, like the rules of grammar, cannot be determined outside of usage. Sometimes it is useful to make distinctions among employment relationships and sometimes it is useful to explore similarities. This is true even within categories. For example, sometimes the

distinction between voluntary and involuntary part-time work is very important and sometimes it is not useful. For purposes of this report, the detailed categories of employment relationships defined in the Washington SPS will be used to make distinctions among employment strategies when appropriate.

This study addresses new work arrangements in five steps:

- *Part One* gives a brief look at national data on new work categories and on the youth labor market.

- *Part Two* provides analysis of the four categories of contingent work identified specifically in the Washington SPS. This section charts the geography and demography of these unique, discreet employment relationships.

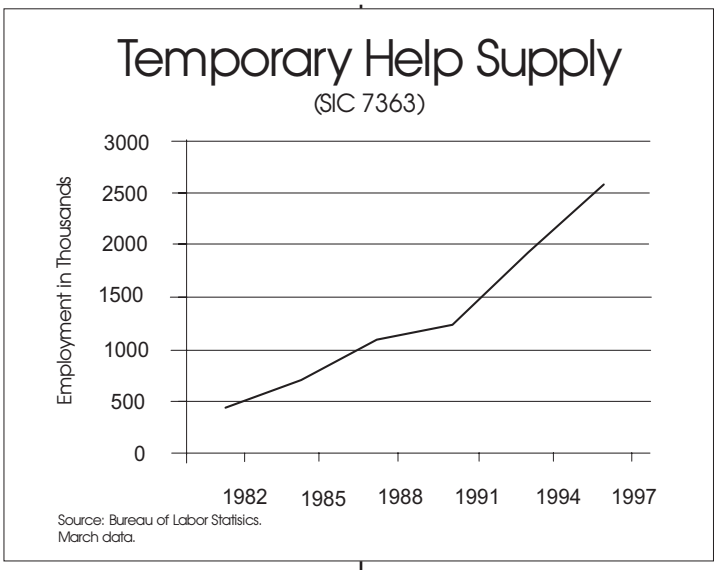
- *Part Three* shows the intersection of changing work hours and changing employment durations.

- The work hours discussion suggests a new way to examine employment relationships and work time. The key difference between "contingent" and other work arrangements is the underlying status of the worker — as employee or as something less. Another key distinction is between full time and less during a week. Taken together, these two distinctions suggest four categories of work given new arrangements: full time and full employee status, part-time and full employee status, full time and partial employee status, part-time and partial employee status. In *Part Four*, the distribution of work within these categories is examined

- Finally, *Part Five* is a more complex analysis of wage setting procedures in new work arrangements. These four categories will be termed "temporary" when viewed in isolation because that is what they are called in the survey. These jobs will also be called "contingent" or "partial status" jobs to highlight the key change which these positions represent, namely, partial or lost employee status. The phrase "non-standard work arrangements" will be used to suggest both part-time jobs and new work arrangements. This will occur in the discussion about wage setting institutions, where the discussion turns to the effect of the combination of part-time and contingent work arrangements.

PART ONE

NATIONAL TRENDS AND THE YOUTH LABOR MARKET



Nationally, non-standard work has become a key feature of the labor market. About 5.6 million workers were in temporary jobs in 1997 and 12.6 million were in alternative employment arrangements. Of those in alternative arrangements, 8.5 million were independent contractors, 2.0 million were on-call, 1.3 million were temporary help agency workers, and 800,000 were contract company employees.[9] The Western region had the highest utilization rate of contingent and non-standard worker arrangements. These figures were little changed from the 1995 survey. Recent data from a California survey found that 45 percent of employees had been with their current employer for less than two years.[10]

Not surprisingly, workers in these arrangements tend to have less time on the job with a given employer.[11] But these arrangements are also associated with a range of negative labor market outcomes, including less employer-provided training, fewer promotions, and increased layoff rates.[12] These outcomes are a direct result of alternative arrangements. In large measure, non-standard work arrangements are means of dismantling the structures which provided advancement *within* firms. Economists have called these structures for promotion and benefit accrual "internal labor markets". The growth and diversification of alternative employment relations is, in many cases, a return to reliance on external labor markets for skill-building and benefits. In the process, opportunities for training, promotions, and wage gains within firms are lost. The destruction of internal labor markets is so fundamental to the trend toward alternative work arrangements that some analysts have made "market mediated arrangements" their definition of non-standard work arrangements.[13] In response, unions, community organizations, and private firms are creating innovative means to rebuild career paths and benefit opportunities.[14]

National data show, for each benefit and for every category of work arrangement, non-standard work implies less benefit coverage.

TABLE ONE Benefits and Employment Status, 1997 U.S. Workers Age 25 and older		
Employment Category	Health Insurance **Through Main Job**	Pension Coverage
Independent Contractor	2.4%	38.4%
On-call	21.8	23.2
Temp Agency	7.7	4.2
Contract Firm	50.8	36.4
Traditional	66.6	56.1

Source: Cohany (1998).

The impact of alternative work arrangements on employee benefits is perhaps the best documented implication of the change in labor markets. Table One shows the results of the most recent national survey. National data show, for each benefit and for every category of work arrangement, non-standard work implies less benefit coverage.

While the benefit picture is decidedly bleak, the wage distribution among alternative work arrangements is more mixed. Table Two shows national figures for earnings by work arrangement.

Independent contractors and workers hired through contract labor firms tend to have higher weekly earnings than other non-standard workers and traditional employees. These figures are suggestive, but they are marred by two uncertainties. First, because the figures are for weekly earnings, they mask differences in work hours. Limiting the data to full-time workers helps, but this only means the individuals work more than 35 hours a week. In the Washington tables presented below, hourly earnings are shown to eliminate differences in weekly hours. Second, the source of the variation across work arrangements is unknown. Underlying differences in the workers or firms within these categories may explain much of the variation in earnings levels. Again, in the Washington data presented below, efforts are made to control for worker and firm characteristics in evaluating wage differences. It may be, for example, that the higher education levels of contract workers explain their higher median earnings. Moreover, those education levels might correspond to even higher earnings in non-contract settings.

Non-standard work arrangements do more than reduce access to benefits while a worker is in one of these arrangement. They appear to have long term effects on the earnings and benefit histories of individuals who work in them. Part-time work is associated with longer-term patterns of lower pay for both men and women, though the impact on women's earnings is strongest when part-time work is involuntary.

Experience with part-time work is associated with long-term reduced access to pension and

TABLE TWO Median Weekly Earnings of Full-Time Workers 25 & Older					
	Independent Contractor	On-call	Temp Agency	Contract Firm	Traditional
Median Weekly Earnings	$590	$457	$364	$681	$550

Source: Cohany (1998).

health benefits, though the correlation for men is not statistically significant.[15]

YOUNGER WORKERS AND THE CONTINGENT ECONOMY

The tables in this report focus on adult contingent workers. This does not imply that younger workers are not affected by the contingent economy. On the contrary, they are excluded from this analysis because the implications of contingent work for younger workers requires discrete analysis. Given the irregularities of the labor market for youth, untangling the specific affects of non-standard work arrangements for these workers is beyond the scope of this report.

> Instead of expecting a career or even a relationship with the employer they work for, more and more young workers find themselves working for one company but employed by another.
> -- Helene Jorgensen

A recent 2030 Center report, using BLS 1997 national data, shows the implications of non-standard work for younger workers. Half of all temporary workers are under 35. More than one in four young workers lack a full-time, full year job. Only five percent of young temp workers are covered by employer-provided health insurance. Young temps earn an average of 16.5 percent less than they would earn on a regular job. Only 14.5 percent of all young temporary workers are covered by retirement plans, compared to 52 percent for young workers in standard employment.[16] Writing in the *Seattle Post-Intelligencer*, the 2030 report's author, Helene Jorgensen, concludes that much of this disparity results from disjointed employment relationships: "Instead of expecting a career or even a relationship with the employer they work for, more and more young workers find themselves working for one company but employed by another."[17]

Teenagers are particularly over-represented among contingent workers. Workers ages 16 to 19 are just 4.4 percent of all non-contingent workers, but between 12 and 19 percent of all contingent workers, depending on definitions.[18] The specific effects of non-standard work arrangements on teenagers deserve greater analysis. Given the difficulties which teenagers experience in establishing careers, it would be useful to uncover the role of non-standard work in exacerbating an already disfunctional labor market or in providing needed experience for defining future careers.[19] Again, because teenagers have particularly erratic work patterns — whether or not they are in contingent or alternative jobs — it is important to isolate adult workers when analyzing employment implications.

PART TWO

FOUR CATEGORIES OF CONTINGENT WORK IN WASHINGTON

As mentioned earlier, Washington state conducts a unique survey of over 7,000 representative households that includes detailed questions on new work arrangements. The most recent survey found that in 1998, 494,000 workers or 17.8 percent of all employees, considered their jobs "temporary" while 592,000 were working part-time.[20] About 266,000 workers were both part-time and temporary. All told, 30 percent of the Washington state work force said they worked in either temporary or part-time jobs.

And these workers are not concentrated in one area, industry, or firm — despite the amount of attention which one large firm in one area has generated. As table three shows, using a more specific definition of "temporary", part-time and temporary work pervades the Washington economy from Aberdeen to Walla Walla.

As discussed below, these figures do not include seasonal employment and use a restrictive definition of contingent work. Even without including the irregularities of seasonal work, over 20 percent of all adult employment in any region of the state is part-time or contingent. Regions here and elsewhere in this report are defined by the SPS as **North Sound** (Island, San Juan, Skagit, Whatcom), **King** (King County), **Puget Metro** (Kitsap, Pierce, Snohomish, Thurston), **West** (Clallam, Jefferson, Mason, Grays Harbor, Pacific, Lewis, Wahkiakum, Cowlitz, Skamania, Klickitat), **Clark County**, **Spokane County**, **Yakima-Tri-Cities**, **East** (Okanogan, Ferry, Stevens, Pend Oreille, Chelan, Douglas, Lincoln, Kittitas, Grant, Adams, Whitman, Walla Walla, Columbia, Garfield, Asotin).

These new arrangements exist all over the state, but they are most likely in small firms, not large firms. Table three shows the distribution of adults in part-time and other non-standard work arrangements by firm size.

All told, 30 percent of the Washington state work force said they worked in either temporary or part-time jobs.

One-fourth of all adult employment is part-time and/or contingent, but more than one-third of all employment in small firms is not full-time, full employment status. Again,

TABLE THREE
Portion of All Adult Employment that is Part-Time and/or Contingent By Region

North Puget	West	King County	Puget Metro	Clark County	East	Spokane County	Tri-Cities
30%	31%	25%	26%	24%	30%	27%	23%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

TABLE FOUR Percentage of Adult Employment that is Part-Time and/or Contingent By Firm Size				
2-9 Employees	10-49 Employees	50-99 Employees	100-499 Employees	500 or More Employees
36%	27%	6%	14%	16%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

although one extremely large Washington-based firm is often associated with these new work arrangements, new forms of employment are more prevalent in small firms in Washington state. Over 200,000 adults work in part-time or contingent jobs in smaller firms in Washington compared to just over 50,000 in the largest firms.

CONTINGENT WORK IN THE WASHINGTON SURVEY

The Washington survey is a snapshot, not a movie. It gives information at one point in time. It has been given twice, but two years of data can't constitute a trend. From other sources we know that temporary help supply employment in Washington state grew 13.4 percent per year between 1982 and 1995 while all state employment grew just 3.2 percent. This *quintupling* of employment in temporary supply employment is a significant event in Washington labor markets.[21] While the Washington survey can't provide information on growth over time, it can provide clues to the changing labor market, first, by highlighting structural differences across regions, industries, and employment categories and, second, by providing information to apply to other studies which cover longer time periods. The primary virtue of the SPS as a data source is the ability to link detailed contingent work questions to a wide array of demographic and labor market questions.

Part-time and temporary work figures published by Washington's Office of Financial Management include all employees and all individuals who responded "yes" to a survey question about whether they considered their current job to be temporary. The figures presented here use more conservative measures of non-standard work and examine specific implications for adult workers (20 and older). The survey question about temporary status is followed by a second question which asks why the responded considers his or her job to be temporary. Among the options are "don't plan to keep this job", "not a career", "job not interesting", and "pay too low". Individuals who give these answers are excluded from the following tables because their motivation for calling a job temporary has no structural implications for the job itself. Their distinction is motivational, not contractual. They may also be wrong in assuming their jobs are temporary just because they don't like them for whatever reason.

Instead, we need to understand jobs which are *designed* to be outside traditional employment arrangements. We want to examine the impact of redesigning employment relations. Similarly, in keeping with previous research, seasonal workers are excluded because their employment varies in a predictable, traditional way. However, seasonal workers who primarily consider their job temporary because

they found it through a temporary agency or other explicit category of contingent work will be included. Limiting responses to those which identify temporary jobs based on new employment arrangements gives the following options: hired as a temporary, hired through a temporary agency, contract job, and "other" reasons which are not specified. The latter is included because it cannot be determined whether these individuals are in true new work arrangements or have other motivations. The fact that "other" is the largest single category in the survey shows a problem with the survey options. The data was then cleared of miscodings and outliers.[22]

With these refinements in mind, the following is a portrait of non-standard work in Washington State. We'll look first at the specific categories of non-standard work, then investigate the relationship between new forms of employment and part-time work.

CONTINGENT WORK AND GENDER

Women are 46.5 percent of the adult worker sample. They are over-represented among temporary workers (50.4 percent) and "other" contingent workers (55.9 percent). Men are over-represented among temporary agency workers (57.2 percent) and contract workers (56.1 percent).

The finding that men are over-represented among temporary agency workers is not consistent with national figures, where women slightly outnumber men. The finding that men are over-represented among contract workers is consistent, but the extent of over-representation is much lower in Washington state than in national surveys. Male contract company workers outnumber women almost 3:1 nationally.

CONTINGENT WORK AND RACE

Racial differences are readily apparent in the distribution of adult contingent workers across new work arrangements.

Washington state has a higher percentage (90 percent of adult employment) of Caucasian workers than the national average. These workers are distinctly over-represented as contract workers and under-represented in all other categories. They are much less likely than other workers to be temporary agency workers. Asian and Pacific Islanders and Native Americans are significantly over-represented as temporary agency workers, with Native Americans being employed as temporary workers at almost seven times the rate their population would suggest. African-Americans are rarely temporary workers, unmeasurable as contract workers, but over-represented as "other" contingent workers.

TABLE FIVE
Gender and Contingent Work Categories

	Temporary	Temporary Agency	Contract	Other
Male (53%)	48%	55	56	44
Female (47%)	52	45	44	56

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

TABLE SIX Race and Contingent Work Categories				
	Temporary	Temporary Agency	Contract	Other
African American (2.8%)	-	4%	-	7
Native American (1.5%)	3	9	-	2
Asian or Pacific Island (5.8%)	14	19	2	11
Caucasian (89.8%)	82	68	98	81

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

TABLE SEVEN Education and Contingent Work Categories				
	Temporary	Temporary Agency	Contract	Other
Less Than High School(4.0%)	3%	16	-	7
High School (25.7%)	22	9	18	26
Some College (23.7%)	28	8	18	23
College (34.3%)	35	67	32	31
College + (12.3%)	12	-	31	13
Total:	100%	100%	100%	100%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
Columns may not total 100% due to rounding.

CONTINGENT WORK AND EDUCATION

There are striking differences in education levels across the new work categories.

In keeping with national figures, contract workers in Washington state are more likely than other workers to be highly educated. Over 60 percent of adult contract workers in Washington have college degrees or more. At the other end of the educational spectrum, about one-fourth of temporaries, temporary agency workers, and "other" contingent workers have high school degrees or less. The situation with temporary agency employees is an interesting mix. About one in four have a high school degree or less, but almost two-thirds have college degrees, almost double the rate of college degree holding among all adult workers. This distribution highlights the diversity of services provided by the industry. When we turn to wage information, it is all the more striking that this highly educated classification of workers has below average earnings and benefits.

Over 60 percent of adult contract workers in Washington have college degrees or more.

CONTINGENT WORK AND INDUSTRIES

A key factor in understanding non-standard work is understanding the process of industrial restructuring. Non-standard work arrangements are not abstract; they emerge in the context of industrial strategies. Table Eight shows the industrial distribution of Washington workers in each of the work arrangements.

A key fact is obvious. Temporary work and "other" new work arrangements are distributed across all industries, but temporary agency workers and contract workers are concentrated in services, overwhelmingly, and manufacturing or construction. Around two-thirds of all Temporary Agency and Contract workers are in service industries. The Washington survey found no measurable adult temporary agency or contract workers in wholesale or retail trade, finance, insurance, real estate. This is partly because the table only relates to adult workers. It also should not be interpreted to mean there are no workers in these categories in these industries anywhere in the state. It simply means no workers in those situations were contacted among the households called during the survey. Their numbers may not be zero, but they are minimal.

Around two-thirds of all Temporary Agency and Contract workers are in service industries.

Some analysts have suggested that the shift toward new work arrangements is related to the existence of "dual labor markets", that is, labor markets with a core of stable employment and

TABLE EIGHT
Industries and Contingent Work Categories

Industry (% of Employed Adults)	Temporary	Temporary Agency	Contract	Other
Agriculture, Forest, Fish (1.8%)	2%	-	-	3
Manufacturing (16.5%)	11	17	26	6
Construction, Mining (7.7%)	15	21	9	5
Transportation, Communication, Utilities (7.2%)	7	-	2	5
Wholesale, Retail (14.8%)	9	-	-	18
Financial, Insurance, Realty (7.7%)	10	-	-	1
Services (44.3%)	46	62	64	61
Total:	100%	100%	100%	100%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
Columns may not total 100% due to rounding.

a periphery of lower- wage, contingent jobs. A variation on that theme argues that contingent work is a response to business cycles. Firms hire contingent workers so they can shed employees during economic downturns. The fact that all four categories of new work arrangements are over-represented in service industries may contradict the business cycle model of contingent work. Since the Washington survey was carried out near a business cycle peak, cyclical industries should have very high concentrations of contingent workers (prior to shedding them during the next downturn). Instead, service industries, which are least cyclical, have far and away the highest concentrations of contingent workers — at a high point in the business cycle. A dual labor market perspective may be the correct interpretation of contingent work, but basing that duality on business cycles may be misleading. It may be more accurate to think of non-standard work as an aspect of the "hollowing" of corporate structures.[23]

The fact that all four categories of new work arrangements are over-represented in service industries may contradict the business cycle model of contingent work.

PART THREE

FLEXIBILITY: HOURS AND CONTINGENCY

Non-standard work arrangements are about flexibility. Part-time work requires employers and workers to be flexible about weekly schedules. Contingent work requires implicit or explicit contracts which are flexible within a given time frame.

Among employed adults in Washington state, 76 percent of workers in standard employment relationship worked full-time compared to just 46 percent of those in contingent jobs.

As both the Washington survey and the national survey show, new work arrangements include both part-time and contingent work. This section will discuss the connection between part-time work and contingent employment. Given the prevalence of part-time work in the Washington economy, it will be the focus of a future, more detailed study in this working paper series.

As Table Seven shows, the majority of workers in new work arrangements are working full time.

Three-fourths of all adult temporary agency workers work full time. Only "other" contingent workers are more likely to work part-time than full-time.

None of the contingent work arrangements provide full-time employment at the rate which traditional jobs provide full-time employment. Among employed adults in Washington state, 76 percent of workers in standard employment relationship worked full-time compared to just 46 percent of those in contingent jobs.

Three-fourths of all adult temporary agency workers work full time.

Differences in work time are reflected in preferences for contingent work versus "permanent" jobs. Table Eight shows the preferences of different categories of workers for temporary jobs.

The vast majority (81 percent) of adult workers who work full time at temporary jobs would prefer a permanent job. Workers

TABLE NINE
Work Hours and Contingent Work Categories

	Temporary	Temporary Agency	Contract	Other
Full Time (76%)	58%	77	56	36
Part Time (24%)	42	23	44	64
Total:	100%	100%	100%	100%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
Columns may not total 100% due to rounding.

TABLE TEN Full-Time Temporary Workers Prefer Permanent Employment		
	Full-Time, Temporary	Part-Time, Temporary
Prefer Permanent	81%	52
Prefer Temporary	19	48
Total	100%	100%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
Columns may not total 100% due to rounding.

working part-time in temporary jobs are more evenly divided between those who would prefer permanent employment and those who prefer temporary jobs.

The distinction between full- and part-time contingent work has implications for earnings as well. Hourly wage rates and hours of work are not separate issues. In fact, some occupations show evidence of higher hourly wages combined with longer average work hours while other occupations show long work hours and no corresponding increase in hourly wage rates.[24] Part-time workers consistent receive lower hourly earnings as well as reduced work hours. Table Nine shows hourly wages for each category of contingent work, distinguishing full-time and part-time workers.

Within each category of contingent work, part-time workers earn lower average hourly wages than full-time workers. Full- and part-time contract workers earn more than their counterparts, on average, in other contingent work arrangements. But part-time contract workers are still not paid as well as full-time temporary or full-time contract workers.

The vast majority (81 percent) of adult workers who work full time at temporary jobs would prefer a permanent job.

TABLE ELEVEN Median Hourly Wages and Contingent Work Categories				
	Temporary	Temporary Agency	Contract	Other
Full Time	$12.02	$17.50	$31.25	$11.36
Part Time	$7.75	-	$11.16	$10.00

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
*Fewer than 10 valid observations for this question.

PART FOUR

NEW WORK ARRANGEMENTS, WORKTIME AND EMPLOYEE STATUS

Given the prevalence of part-time work among contingent workers, the differences in desirability between temporary work among full- and part-time temporary workers, and the differences in earnings, it makes sense to distinguish between full- and part-time weekly hours and between full and contingent employment status.

This suggests four categories of work: (1) Full Time, Full Employment Status, (2) Part-Time, Full Employment Status, (3) Full-Time, Partial Employment Status, (4) Part-Time, Partial Employment Status.

It is not surprising to find that men are over-represented in full time jobs, whether with full employee status or in contingent work. But it is noteworthy that the percentage of all employees who are men in part-time contingent jobs is *higher* than their percentage of full-time contingent jobs.

As with gender, race is a component of the distribution of employment among categories. Within the full employment status categories, whether full- or part-time, the distribution of workers by race is quite similar to their distribution within the employed population. Only Asian Pacific Islanders are slightly under-represented among part-time, full employment status workers.

TABLE TWELVE
Gender and Employment Status

	Full Time, Full Status	Part Time, Full Status	Full Time, Part Status	Part Time, Part Status
Men	60%	31	61	35
Women	40	69	39	65

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

TABLE THIRTEEN
Race and Employment Status

Race (% of Adult Employed Population)	Full Time, Full Status	Part Time, Full Status	Full Time, Part Status	Part Time, Part Status
African-American (2.8%)	3%	2	6	3
Native American (1.5%)	1	1	3	2
Asian or Pacific Islands (5.8%)	6	4	9	13
Caucasian (89.8%)	90	92	82	81

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
Columns may not total 100% due to rounding.

TABLE FOURTEEN Industries and Employment Status				
Industry (% of Adult Employed Population)	Full Time, Full Status	Part Time, Full Status	Full Time, Part Status	Part Time, Part Status
Agriculture, Forest, Fish (1.8%)	2%	-	3	2
Manufacturing (16.5%)	20	6	15	6
Construction, Mining (7.7%)	9	5	19	-
Transportation, Communication, Utilities (7.2%)	8	6	4	6
Wholesale and Retail Trade (14.8%)	13	20	5	18
Finance, Insurance, Real Estate (7.7%)	8	6	-	6
Services (44.3%)	40	56	54	61
Total:	100%	100%	100%	100%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
Columns may not total 100% due to rounding.

Employment differences show up more strongly within the contingent categories. Native Americans and African-Americans are twice as likely to have full-time contingent jobs as their population numbers suggest. Asian Pacific Islanders are more than twice as likely to be in part-time contingent jobs as their portion of the total population would suggest.

The industrial distribution of part-time work and contingent work can be simplified by looking just at over- and under-represented industries within each category. Toward that end, Table Fourteen shows the most and least representative industry for each of the four categories of work relationships.

Manufacturing industries are the most likely to provide full-time, full employment status relative to their portion of total adult employment. Although manufacturing is just 16 percent of all adult employment in Washington, it holds 20 percent of all full-time, full-status employment. Service jobs, on the other hand, are so under-represented among full-time, full-status employment that they are the most over-represented in all other categories. Construction and mining show a clear distinction between full-time and part-time contingent work. These industries are over-represented among full-time contingent work employers (19.1 percent of all full-time contingent workers are in these industries which represent only 7.7 percent of employed adults), while under-represented among part-time contingent workers (.9 percent of that category is in construction or mining).

Table Fifteen shows the distribution of educational attainment across these four categories of employment.

Part-time and contingent workers are the most educated category of workers as 49 percent have a college degree or more.

Part-time and contingent workers are the most educated category of workers as 49 percent have a college degree or more. In contrast, full-time contingent workers are the most likely to have less than a high school education. The distribution of education within part-time and full-time traditional employment relationships is quite similar.

WAGES AND BENEFITS: THE PRICE OF FLEXIBILITY

Table Sixteen summarizes findings on benefits and wages within each of the four employment categories. The results confirm the findings for each of the detailed contingent work categories in the first part of this discussion. Part-time workers and contingent workers, whether full-time or part-time, are likely to have lower hourly earnings and fewer benefits than full-time, traditional employees. Part Time workers in standard employment relationships tend to have earnings similar to full time workers in contingent arrangements.

The table is informative in at least two ways. First, it is noteworthy that for each type of employee benefit, the highest level of coverage is full-time, full-status workers, but the second highest tends to be full-time, partial status. An implication of this may be that it is part-time work, more than contingent work, that reduces levels of benefit eligibility. Once outside the category of full-time full-status employees, employee benefits appear more dependent on

TABLE FIFTEEN
Education and Employment Status

Education (% of Adult Employed Population)	Full Time, Full Status	Part Time, Full Status	Full Time, Part Status	Part Time, Part Status
Less Than High School (4.0%)	4%	4	6	6
High School (25.7%)	26	25	24	22
Some College (23.7%)	23	27	23	23
College (34.3%)	35	33	34	36
College + (12.3%)	13	11	14	13
Total:	100%	100%	100%	100%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.
Columns may not total 100% due to rounding.

TABLE SIXTEEN Benefits, Wages and Empolyment Status (Empolyed Adults)				
	Full Time, Full Status	Part Time, Full Status	Full Time, Part Status	Part Time, Part Status
Median Hourly Wage	$16.54	$11.54	$13.46	$10.00
Employer Health Plan	81%	56	58	50
Educational Assistance	57	30	43	25
On-Site Child Care	9	6	8	10
Child Care Subsidies	7	3	2	3
Paid Vacation, Sick Leave	87	55	58	37
Retirement Benefits	76	40	62	40
Union Membership	24.0	16.1	23.5	7.5

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

work hours than on employment status. It bears noting, however, that part-time contingent workers report the highest eligibility for on-site child care among all categories of workers.

The last line of Table Sixteen offers another part of the explanation for lower wages and fewer benefits among part-time and non-standard work arrangements is lower unionization — part-time and contingent workers are less likely than traditional employees to be union members. Lower union membership among part-time workers, whether contingent or not, is particularly clear. Conversely, exceptionally high rates of unionization (compared to national figures) among full-time contingent workers in Washington may explain the higher rates of benefit eligibility evident among these workers.

Part of the explanation for lower wages and fewer benefits among part-time and non-standard work arrangements is lower unionization.

PART FIVE

DO NEW WORK ARRANGEMENTS CHANGE WAGE DETERMINATIONS?

To summarize: National data show a pattern of reduced access to employee benefits among part-time and contingent workers. They also show lower wages among these workers and in some cases persistent disadvantages. Washington data for four contingent work categories shows a similar pattern of reduced wages and benefits. More detailed analysis of Washington data, isolating the effects of both full- and part-time work and full and partial employment status, shows the same pattern and distinct wage differentials.

These efforts are informative, but more rigorous analysis is required to isolate the effect of these alternative employment relationships on wages while accounting for the differences in employee and employer characteristics which we know exist. It has already been noted that some categories of contingent work show exceptional education levels. Why aren't these education levels resulting in similarly exceptional earnings?

Regression models offer a means to address such questions. In a nutshell, regression methods test the link between a set of variables and a specific outcome. Regression methods test the notion that an outcome can be expressed as an equation using available variables as inputs. The method allows users to control for the effects of other variables on the outcome under investigation. In the case of wages, a regression model can be used to measure the effects of various variables on an individual's hourly wage. More specifically, we can use a regression model to examine the impact of alternative work structures on wages, after controlling for individual differences in personal and employer characteristics.

To measure the affect of non-standard work on the wages of workers in these arrangements, we can build a series of models of the wage setting process. Each step in the process builds on the previous model, showing the additional information gained as the model becomes more complicated.

As a starting point, neoclassical economists often rely on a "human capital" model of wage determination.[25] In these models, wages are the result of skill (most frequently measured using education) and experience (most frequently measured using age). Expressed as an equation, this wage model looks like this:

$$\text{Ln(hourly wage)} = \alpha + \beta_1(\text{education}) + \beta_2(\text{age}) + \beta_3(\text{age}^2) + e$$

Where the log of hourly wages is a function of: some constant (α), education, age, and age squared. The log of wages is used so the equation is a linear model. The square of age is included because the coefficient on that variable (β_3) captures the decreasing returns to experience over time. The last term in the equation captures missing information.

Despite its simplicity, this model of wage determination is notably robust; equations

based on these variables explain a fair portion of wage variation among workers and the relationships among the variables are quite consistent across applications.

Using this simplest human capital model as a starting point, we can build a more complicated picture of the wage setting process. We know race and gender affect wage rates. A second, more detailed model of wage determination includes variables measuring those influences.

A third model builds on the second, adding a variable which captures whether the individual is in a non-standard work arrangement (NSWA). Workers who are part-time or contingent workers are identified and the effect of being a part-time or contingent worker is measured. This variable does not distinguish between voluntary and involuntary part-time workers. The hypothesis in the model is that part-time work represents a new factor in wage setting institutions regardless of an individual's motivation or an employer's motivation. The wage model is a step toward answering the question: What is the impact of part-time and contingent work on wages? In answering that question, it does not distinguish among the sources of the shift toward part-time and contingent work.

Finally, a fourth model builds on the third by incorporating the effects of firm size on wages. We do this two ways: first, by including the answers which individuals gave when asked how many employees were in the firms for which they worked and, second, by grouping small and large firms into distinct categories. These two options are run as separate equations to more fully explore the influence of firm size on wages and non-standard work.

Appendix A summarizes the five wage equations. Model number one measures the effects of skill and experience on wages in Washington state. In keeping with other applications of this model, we find increasing wages with increased education and experience with the returns to experience declining slightly over time. One important finding in this model: holding experience constant, a college degree raises wages by 42 cents for every dollar earned.

Column two adds race and gender to the human capital model. The model finds men in Washington earn 32 cents per dollar more than women after accounting for differences in education and experience. The impact of race is unclear. The regression results suggest that race has no measurable effect on wages. This may be misleading in at least two ways. First, the model is too simple to explain whether race and education interact in systematic ways. If some races are systematically limited or advanced through education, the education variable will appear stronger though race is still relevant. Second, given the relatively small populations for some of the race categories, the model may not effectively measure influences on these populations. Regardless of the reason, the impact of race on wages was not measurable in any of the wage equations.

Participation in part-time or contingent work implies a 15 cent an hour wage cut after accounting for differences in education, experience, race, and gender.

Column 3 adds a variable for non-standard and/or part-time work to the wage equation. This is a yes-or-no variable capturing whether an individual is in some form or part-time or contingent work arrangement. Participation in part-time or contingent work implies a 15 cent an hour wage cut after accounting for differences in education, experience, race, and gender. When non-standard work is included as a variable, the impact of gender on wages

declines. In other words, some of the difference in wages between men and women with similar education and experience is due to dissimilar participation rates in non-standard work. Men earn 29 percent more, other factors are held constant, when non-standard work is included in the equation.

When firm size is added as an influence on wages, the impact of non-standard work drops by half. Workers in non-standard work arrangements lose 7.9 percent versus comparable workers in comparable firms.

Column 4 includes firm size as an influence on wages. Firm size is include alone and in combination with non-standard work. When firm size is added as an influence on wages, the impact of non-standard work drops by half. Workers in non-standard work arrangements lose 7.9 percent versus comparable workers in comparable firms. Previous research consistently shows larger firms pay higher wages.[26] This equation shows that the influence of firm size explains some of the wage difference between non-standard work and traditional employment. The small but statistically significant coefficient on firm size indicates that the positive effect of firm size on wages only has real world economic value in extremely large firm. The firms size variable in the SPS is imperfect at best because survey respondents simply say how many employees they think work for the firms where they work. It is a guess by the respondent and the data is unevenly distributed as a result.

Taking the finding from Appendix A, Column 4 as a signpost, more detailed information is gained by isolating the influence of large (over 500 employees) and small (under 10) firms. This strategy makes sense given the clustering of data in response to the firm size question. This structure provides information about the influence of non-standard work on wages in three categories of firms: small firms, large firms, and firms in between.[27] To evaluate the influence of firm size and non-standard work on wages, one must combine the results for both the non-standard work variable and the firm size interaction variables. Table Seventeen summarizes the findings on firm size categories.

TABLE SEVENTEEN
The Effects of Firm Size and Non-StandardWork Arrangements (NSWA) on Wages

	Effect of Firm Size on Full Time, Full Status Wages in Medium-Sized Firms +	Effect of Non-Standard Work Arrangements on Wages +	Effect of Non-Standard Work and Firm Size Together =	Wages for Non-Standard Work Relative to Traditional Work in Medium Sized Firm
Small Firms	-6.6%	-17.7%	16.5%	-7.8%
Medium Firms	N.A.	-17.7%	N.A.	-17.7%
Large Firms	18.8%	-17.7%	*	1.1%

*Not significantly different from zero.
Source: Author's calculations using Washington State Population Survey (SPS), 1998.

Looking first at small firms, workers in traditional employment in small firms earn 6.6 percent less than similar workers in larger firms. Workers in non-standard work in small firms earn 7.8 percent less than similar workers in larger firms. In medium-sized firms, after controlling for worker characteristics, non-standard work implies a 17.7 percent wage disadvantage. Recall that Equation 3, which did not include the effects of firm size, assumed a 15 percent wage reduction in non-standard work. The higher estimate in this model shows that the lower estimate was due to unmeasured size effects, particularly the positive influence of large firms on average wages. In large firms, workers in traditional employment enjoy an 18.8 percent wage premium over similar workers in smaller firms. But non-standard workers in large firms experience only a 1.1 percent premium over similar workers in smaller firms. Non-standard work essentially eliminates the wage premium of workers in a larger firm.

That's what the numbers show. What does it mean for changing labor markets? The findings suggest two things. First, the slight difference between non-standard wages and traditional wages in small firms suggests that smaller firms may seek *numeric* flexibility more than *wage* flexibility through non-standard work. The wage bill for contingent workers in small firms appears to be only slightly smaller than for traditional workers, but firms gain flexibility in hiring and firing. It remains possible, since the data here is for wages not benefits, that the seemingly small wage difference may correspond to a more significant, but unmeasured, savings in employee benefits. This is likely given the findings in the preceding sections addressing reduced employee benefits. Second, in contrast to small firms, both large and medium size firms appear to pursue part-time and contingent work primarily as a wage saving strategy. Workers in non-standard work arrangements in medium sized firms earn 18 percent less than similar workers in traditional employment. Non-standard work in large firms almost completely erases the wage premium which is otherwise evident among large firms.

Non-standard work essentially eliminates the wage premium of workers in a larger firm.

Workers in non-standard work arrangements in medium sized firms earn 18 percent less than similar workers in traditional employment.

Appendix B compares the above findings with a model which isolates the effect of the four contingent work categories. To this point, the variable "NSWA" has included all individuals who work in part-time jobs or in one of the four categories of contingent work. NSWA is both part-time and contingent. The new equations in Appendix B drop part-time workers unless they are working part-time in temporary, temporary agency, contract, or "other" temporary employment. The model is intended to isolate the effects of these new employment relationships without the effect of the much larger trend toward part-time work in otherwise traditional arrangements. The model using NSWA and size categories is the best approximation of actual wages (r^2=.224), but only slightly more accurate than the contingent work model with size categories.

The first two columns of Appendix B compare models with a firm size variable — not firm size categories — and either (1) non-standard work or (2) contingent work variables. The results include two interesting outcomes. First, comparing the models with firm size and not firm size categories, it is striking that the coefficient on firm size is identical in the two equations. This suggests that firm size has essentially the same effect on wages *outside* new work arrangements whichever way the model is specified. This gives some

confidence in our measure of this relationship. Second, the impact of contingent work arrangements is about three times larger than the impact of non-standard work was in the preceding models. Since the coefficients on the other variables are comparable to the NSWA findings, this is an important finding, suggesting that contingent work arrangements have a much larger impact on wages than does part-time work in traditional settings. As note above, using firm size instead of firm size categories results in a less accurate estimate of wages because answers to the firm size question are clustered.

The vast decline in wage rates suggests that contingent work, more than part-time work, explains the wage gap between large and small firms.

Columns 3 and 4 of Appendix B compare models with firm size categories and either an NSWA variable (3) or a contingent work variable (4). Here the results are surprisingly different. The coefficient on contingent work is again significantly larger than it was for non-standard work (-30.7 percent versus -17.7 percent). But the effect of firm size categories is decidedly different. Table Eighteen summarized the various outcomes.

In the model of wage determination which controls for contingent work instead of all non-standard work, small and medium-sized firms pay similar wages to similar workers in traditional employment. Small firm wage rates are not lower than medium-sized firm wage rates for these workers. This suggests that much of the difference in firm size wage rates is a function of different utilization of contingent work.

The impact of contingent work is also different across firm size categories. The vast decline in wage rates suggests that contingent work, more than part-time work, explains the wage gap between large and small firms. Non-standard work has a minimal net effect on wages in small firms while contingent work arrangements have a sizeable negative effect.

In contrast with the results for non-standard work (including part-time), contingent work arrangements in large firms have a smaller net effect on wages. In contrast with small and medium firms, this would indicate that part-time work is a larger factor in wage reductions than is contingent work. The effect is not, however, zero. Workers in contingent arrangements in large firms can expect a 14.3

TABLE EIGHTEEN
Non-Standard Work Arrangements (NSWA), Firm Size Categories and Wage Effects

	Traditional Employment, Labor Market with NSWA	Traditional Employment, Labor Market with Contingent Work	Non-Standard Work Wages Relative to Traditional Job in Medium-Sized Firm	Wages for Contingent Work Relative to Traditional Job in Medium-Sized Firm
Small Firms	-6.6%	Equals Baseline	-7.8%	-30.7%
Medium Firms	Baseline	Baseline	-17.7%	-30.7%
Large Firms	18.8%	20.6%	1.1%	14.3%

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

percent wage premium over similar workers in mid-sized firms, but still 6.3 percent below comparable traditional workers in large firms.

Appendix C uses the results of these various models to generate estimated wages for some representative workers. Real-world wages vary based on a vast range of unmeasured variables. To acknowledge some of that variation and variation among the models tested here, the four models are used to produce wage ranges instead of specific wage rates. These ranges result from inserting the chosen individual and firm characteristics into each of the four models. The wage gap column shows the range of differences across the four models. In the distribution of adult workers in Washington, the average worker is a 41 year old male with some college working in a large firm. This person can expect to earn between $17 and $22 an hour in a traditional job or between $14 and $17 an hour under a non-standard work arrangement.

These findings are suggestive, but further evidence is warranted. Although uniquely suited to an investigation like this, the Washington survey is constrained by problems with the questions and by scale. The self-reporting on the firm size variable should inspire caution. It would also be useful to control for geography in assessing wage rates. This was attempted with the Washington data, to account for any differences between the King County region and other areas, but there were too few observations and a direct linear relationship among some variables derailed the regressions. Along the same lines, the smaller sample size of the Washington survey limits the ability to make meaningful statements about specific categories of non-standard work arrangements. Sample size causes problems for analysis of race categories and non-standard work. Overall, the range of outcomes in the various model specifications suggests a significant role for case study research to uncover unique corporate strategies around implementation of non-standard work arrangements.

MOVING FORWARD

Washington state as been at the forefront of activity around contingent work, through high-profile legal action and path-breaking legislative efforts. In the last legislative session, Senator Darlene Fairley introduced a bill to limit state use of contingent workers, promoting them to full employee status after three months. Senator Rosa Franklin sponsored a bill to convene a multi- agency task force to investigate the impact of contingent work on a vast range of economic and social outcomes. Senators Franklin, Fairley, and Kline sponsored legislation to address missclassification of employees.

A 41 year old male with some college earns an average $17-22 in a large firm, but only $14-17 if they're in non-standard work.

The findings from the State Population Survey highlight several directions for future research and activity:

Improve the Washington State Population Survey. A key failing of the state survey is the question on contingent work. It asks if the respondent considers his or her job to be temporary, then gives a list of possible reasons. The national survey is more explicit about whether an individual has an explicit or implicit contract with an employer. This approach highlights the employment relationship, particularly the employer's commitment, whereas the Washington questions rely more heavily on the employee's intentions or, at worst, optimism about the future.

A significant gap in the Washington survey is the inability to clearly examine independent contractors. This category of contingent work is the largest in the national survey, but it is difficult to identify in the state survey. This is a vital issue, both because of the number of workers in this category and because it has enormous implications for tax policy, employee benefits, and employment levels.

Workers in Non-Standard Arrangements. Like so many changes in labor markets, non-standard work erodes traditional relationships and explicit or implicit bargaining. Improving the outcomes from new arrangements implies giving greater leverage and information to workers in these arrangements. Improving information, limiting monopolies by temporary agencies, and enforce existing protections would reduce the labor market down-sides of non-standard work. This study has also revealed the correlation between low unionization and lower wages and benefits in non-standard work. The positive aspects of non-standard work — flexibility for workers with difficult personal schedules, opportunities to restructure other aspects of the work experience, gaining experience with a variety of firms instead of one employer — can all be improved and expanded through collective bargaining.

Recent California legislation would have provided much-needed information to temporary workers and their employers. California Senate Bill 1743, introduced by Senator Patrick Johnston, would have required written disclosure of the hourly rate paid by an employer to a temporary firm and the amount paid to a temporary workers. The difference would amount to a fee paid to employment agencies, not workers. This would be useful information for employees to make employment decision and for employers to know which firms are passing more funds on to workers.

Manufacturing Employment. In the rush to embrace a "new" economy or a "post-industrial" future, the value of manufacturing employment is often forgotten. Manufacturing generally pays higher wages, provides better benefits, and has larger multiplier effects than other industries. Both nationally and in Washington state, manufacturing also disproportionately provides full-time, full-year employment outside non-standard work arrangements. Policies which promote manufacturing employment have the added bonus of reducing the impact of contingent work.

Large Firms. The vogue for "post-industrial" policy is matched only by the vogue for embracing small firms. But economic development programs which promote large firms may have more impact in terms of wages, employee benefits, and promoting workers through full employment status. As the data here show, even after the wage reductions which flow from non-standard work are included, large firms pay higher wages for a given skill and experience level. Policies which promote large firms will reduce the impact of non-standard work arrangements on wages.

Labor Market Matches. The California effort to improve information for temporary workers is a step in the right direction. As mentioned in the opening paragraphs of this paper, the odd mix of long unemployment durations, low wages, and large economic impacts on displaced workers are economically unique given sustained low unemployment and economic growth. Some of these problems arise through imperfect matching of workers and firms. The relationship between employment openings and unemployment rates, identified years ago by Lord Beveridge, has changed dramatically in recent years.[28] The gap between the desire for permanent employment and the opportunity only to work

in temporary jobs is a manifestation of a broader shift toward less successful labor market matching

Portability of Benefits. Since so much of the U.S. safety net, from health care to retirement to income support, is linked to employment, the issue of benefit portability is central to the debate about the future of contingent work. The fact that so many benefits are referred to as "employee benefits" focuses the issue. Without employee status, employee benefits are a chimera. Approaches to this problem run in two directions. First, some efforts attempt to rebuild the internal labor markets and employment relationship which contingent work has severed. These efforts include penalizing employers for misrepresenting employees as independent contractors or limiting the duration of contingent relationships before asserting employee status. A second strategy assumes such relationship may never be reassembled and, instead, workers should be building independent sources of skill, benefits, or employment information. The multi-employer plans of the construction trade unions provide one version of this alternative future.

CONCLUSION

Evidence from one year in one state can never be definitive. The role of non-standard work in reshaping labor markets warrants on-going research, dialogue, organizing, and legislative activity. But this brief look at the latest Washington data should give anyone interested in living standards and employment opportunities some concern for the future. If the relationships uncovered in this admittedly preliminary analysis hold true for longer time periods and more sophisticated analyzes, the influence of part-time and contingent work on the future of work will be far reaching. The intersections of firm size, industrial restructuring, dual and segmented labor markets, and changing workforce demographics will all play out through the influence of new employment structures. Providing workers with the tools and leverage they need in this fluid world will be a cornerstone of employment policy for the future.

Appendix A: Regression Results
(Dependent Variable: Log Hourly Earnings)

	Mincer Wage Equation	(1) Plus Race and Gender	(2) Plus Non-Standard Work	(3) Plus Firm Size	(3) Plus Firm Size Categories
	(1)	(2)	(3)	(4)	(5)
Intercept	0.777 (8.7)	0.594 (6.8)	0.780 (8.7)	0.798 (7.2)	0.797 (9.0)
Age	0.073 (17.9)	0.073 (18.4)	0.066 (16.5)	0.066 (13.3)	0.065 (16.3)
Age^2	-0.0008 (16.0)	-0.001 (16.4)	-0.001 (14.5)	-0.001 (11.7)	-0.001 (14.2)
HS	0.206 (5.1)	0.224 (5.7)	0.220 (5.7)	0.178 (3.7)	0.208 (5.4)
Some College	0.242 (6.0)	0.279 (7.1)	0.278 (7.1)	0.220 (4.6)	0.261 (6.8)
College	0.416 (10.6)	0.452 (11.9)	0.451 (11.9)	0.397 (8.4)	0.424 (11.2)
College +	0.619 (14.2)	0.652 (15.4)	0.648 (15.4)	0.628 (11.6)	0.629 (15.1)
Male		0.317 (20.2)	0.286 (17.8)	0.305 (14.5)	0.283 (17.7)
Race		-	-	-	-
Non-Standard Work			-0.152 (8.2)	-0.079 (3.3)	-0.177 (8.1)
Firm Size				1.4 ×10^-6 (5.7)	
Size * NSWA				-	
Small Firm					-0.066 (2.4)
Large Firm					0.188 (8.1)
Small * NSWA					0.165 (3.6)
Large * NSWA					-
r^2	0.141	0.199	0.208	0.204	0.224
F	157.0	141.9	136.6	73.6	109.8

t-Statistics in parenthesis.
- denotes coefficients not significantly different from zero.

Appendix B: Comparison of Wage Equations
Dependent Variable = Log (Hourly Wage)

	NSWA and Firm Size	Contingent and Firm Size	NSWA and Size Categories	Contingent and Size Categories
	(1)	(2)	(3)	(4)
Intercept	0.798 (7.2)	0.746 (6.9)	0.797 (9.0)	0.684 (7.9)
Age	0.066 (13.3)	0.068 (14.0)	0.065 (16.3)	0.069 (17.7)
Age^2	-0.0007 (11.7)	-0.0007 (12.4)	-0.0007 (14.2)	-0.0007 (15.6)
HS	0.178 (3.7)	0.170 (3.5)	0.208 (5.4)	0.198 (5.1)
Some College	0.220 (4.6)	0.213 (4.4)	0.261 (6.8)	0.248 (6.4)
College	0.397 (8.4)	0.388 (8.3)	0.424 (11.2)	0.413 (10.9)
College +	0.628 (11.6)	0.622 (11.6)	0.629 (15.1)	0.620 (14.8)
Male	0.305 (14.5)	0.318 (15.7)	0.283 (17.7)	0.306 (19.7)
Race	-	-	-	-
Non-Standard Work	-0.079 (3.3)		-0.177 (8.1)	
Contingent		-0.220 (4.4)		-0.307 (7.3)
Firm Size	1.4 ×10^-6 (5.7)	1.4 × 10^-6 (6.3)		
Size* NSWA / Size* Contingent	-	-		
Small Firm			-0.066 (2.4)	-
Large Firm			0.188 (8.1)	.206 (9.6)
Small * NSWA / Small *Contingent			0.165 (3.6)	-
Large * NSWA/ Large *Contingent			-	0.233 (2.1)
r^2	0.204	0.206	0.224	0.223
F	73.6	74.4	109.8	109.1

t - Statistics in parentheses.
- denotes coefficients not significantly different from zero.

APPENDIX C:
EXAMPLES OF ESTIMATED WAGE RANGES
USING DIFFERENT WAGE MODELS

Individual Example	Traditional Employment	Non-Standard Work Arrangement	Wage Gap
50 year old Man More than College 1,000 person firm	$26.57 - $33.65	$22.52 - $25.03	$2.02 - $8.90
40 year old Man College Graduate 200 person firm	$19.77 - $21.15	$15.43 - $18.93	$1.56 - $5.54
40 year old Woman College Graduate 1000 person firm	$15.08 - $18.97	$12.34 - $15.06	$1.15 - $5.02
35 year old Man More than College 50 person firm	$22.79 - $24.74	$17.47 - $22.30	$1.83 - $6.28
35 year old Woman More than College 50 person firm	$17.18 - $18.00	$12.89 - $16.44	$1.35 - $4.62
35 year old Woman High School Graduate 1000 person firm	$11.33 - $14.09	$9.18 - $11.40	$.86 - $3.72
25 year old Woman High School Graduate 9 person firm	$8.92 - $8.98	$6.44 - $8.24	$.68 - $2.31

Source: Author's calculations using Washington State Population Survey (SPS), 1998.

END NOTES

1. Council of Economic Advisors, *Economic Report of the President*, February 1999.

2. See for example, Larry Mishel, et. al., *The State of Working America*, 1999.

3. The obsession with fiscal discipline at the cost of social policy has been detailed elsewhere. See Dimitri Papadimitriou and L. Randall Wray, "What to Do with the Surplus: Fiscal Policy and the Coming Recession," Jerome Levy Institute, Policy Note 1998/6; Rebecca Blank, ed., *Social Protection versus Economic Flexibility*, Chicago: NBER, 1994).

4. Larry Mishel, "The 'New Economy'", *The Las Vegas Review-Journal*, February 14, 1999.

5. Craig Copeland, Paul Fronstin, Pamela Ostuw, and Paul Yakoboski, "Contingent Workers and Workers in Alternative Work Arrangements," *Employee Benefits Research Institute Issue Brief Number 207*, March 1999.

6. Marianne Ferber and Jane Walfogel, "The long-term consequences of nontraditional employment," *Monthly Labor Review*, May 1998.

7. Anne Polivka and Thomas Nardone, "On the definition of 'contingent work'," *Monthly Labor Review*, December 1989.

8. Steven Hipple, "Contingent work: results from the second survey," *Monthly Labor Review*, November 1998.

9. Sharon Cohany, "Workers in alternative employment arrangements: a second look," *Monthly Labor Review*, November 1998

10. Chris Brenner, Bob Brownstein, and Amy Dean, "Walking the Lifelong Tightrope: Negotiating Work in the New Economy," Working Partnerships USA and the Economic Policy Institute, 1999.

11. Donna Rothstein, "Entry into and consequences of nonstandard work arrangements," *Monthly Labor Review*, October 1996.

12. Chris Tilly, *Half a Job: Bad and Good Part-Time Jobs in a Changing Labor Market* (Philadelphia: Temple Press, 1996).

13. Angela Clinton, "Flexible labor: restructuring the American workforce," *Monthly Labor Review*, August 1997.

14. Francoise Carre and Pamela Joshi, "Looking for Leverage in a Fluid World: Innovative Responses to Temporary and Contracted Work," in Carre, Ferber, Golden, and Herzenberg, eds., *Non-Standard Work Arrangements and the Changing Labor Market*, Industrial Relations Research Association (forthcoming).

15. Ferber and Waldfogel, *op. cit*., 1998.

16. Helene Jorgensen, *When Good Jobs Go Bad: Young Adults and Temporary Work in the New Economy*, Washington, DC: 2030 Center, 1999.

17. Helene Jorgensen, "A temporary ('disposable') work force has many drawbacks," *Seattle Post-Intelligencer*, June 2, 1999.

18. Steven Hipple, *op. cit*., Table 1, p. 23.

19. Some recent evidence finds that adults have seen almost no wage gains from tight local labor markets, whereas teenagers, including disadvantaged African American youths, experienced real wage increases. Richard Freeman and William Rodgers, "Area Economic Conditions and the Labor Market Outcomes of Young Men in the 1990s Expansion," National Bureau of Economic Research Working Paper #7073.

20. Ta-Win Lin, "Temporary and Part-time Workers in Washington State," *Washington State Population Survey Research Brief No. 4*, June 1999.

21. Gary Kamimura and Paul Cichello, "Temporary Help Supply Employment in Washington," April 1997.

22. The full SPS was reduced to individuals aged 20 and older who worked one hour or more, but less than 60 hours each week. Wages are top coded at $250 per hour, the equivalent of $500,000 a year at full-time, full-year work. This reduced the sample by .6 percent and was only done for calculations on wages. The Bureau of Labor Statistics top codes the Current Population Survey at $100,000 a year.

23. Bennett Harrison, *Lean and Mean: The Changing Landscape of Corporate Power in the Age of Flexibility*, New York: Basic Books, 1994.

24. Daniel Hecker, "How hours of work affect occupational earnings," *Monthly Labor Review*, October 1998.

25. The classic version is Jacob Mincer, *Schooling, Experience, and Earnings*, New York: Columbia University Press, 1974.

26. Wages, benefits, job stability and other positive labor market outcomes are associated with large firms in the United States and elsewhere in the world.

27. Since this is Washington state data, a colleague suggested the firm size categories should be tall, grande and venti. This advice was disregarded.

28. Hoyt Bleakley and Jeffrey Fuhrer, "Shifts in the Beveridge Curve, Job Matching, and Labor Market Dynamics," *New England Economic Review*, September-October 1997. The authors conclude that labor markets have become more efficient and churning has been reduced. This bears re-consideration. On labor market churning in Washington state, see Robert Baker, "Labor Market Churning in Washington," *LMI Review*, May 1996.